PENDING CLAIMS

1. (Withdrawn) A biochip cartridge comprising:

a) a reaction chamber comprising:

i) a substrate comprising an array of electrodes, each comprising:

A) a self-assembled monolayer; and

B) a capture binding ligand;

ii) an inlet port for the introduction of reagents; and

b) interconnects to allow the electrical connection of said electrodes to a processor.

2. (Withdrawn) A biochip cartridge according to claim 1 wherein said capture binding ligands are capture probes.

3. (Withdrawn) A biochip cartridge according to claim 1 wherein said reaction chamber further comprises a gasket to retain fluid in contact with said array.

4. (Withdrawn) A biochip cartridge according to claim 1 further comprising a seal on said inlet port.

5. (Withdrawn) A biochip cartridge according to claim 1 wherein said reaction chamber further comprises an outlet port.

6. (Withdrawn) A biochip cartridge according to claim 1 wherein said reaction chamber is configured to minimize the introduction or retention of air bubbles upon introduction of a sample.

7. (Withdrawn) A biochip cartridge according to claim 1 wherein said array is on one surface of said substrate.

8. (Withdrawn) A biochip cartridge according to claim 1 wherein two surfaces of said substrate each comprise an array.

9. (Withdrawn) A biochip cartridge according to claim 1 further comprising a cap comprising at least one storage well comprising assay reagents.

Claims 10-23. (Cancelled)

24. (Previously presented) A method of analyzing a plurality of biochips comprising

a) inserting a first biochip into a first station of an analysis device;

b) inserting a second biochip into a second station of the analysis device, wherein each of said first and second biochips comprise a substrate comprising an array comprising a plurality of test sites, each test site comprising:

i) a different capture binding ligand;

ii) a different target analyte; and

iii) a label;

c) detecting the presence of said label on said first biochip; and

d) detecting the presence of said label on said second biochip.

25. (Previously presented) A method according to claim 24, further comprising moving a detector between said first station and said second station.

26. (Previously presented) A method according to claim 24, further comprising moving the first station to a detector and moving the second station to a detector.

27. (Previously presented) A method according to claim 24, wherein the act of detecting the presence of said label on said first biochip comprises utilizing a first detector associated with said first station, and wherein the act of detecting the presence of said label on said second biochip comprises utilizing a second detector associated with said second station.

28. (Previously presented) A method according to claim 27, wherein at least one of said first and second detectors comprises a fluorescence detector.

29. (Previously presented) A method according to claim 27, wherein at least one of said first and second detectors comprises an electronic detector.

30. (Previously presented) A method according to claim 24, wherein said capture binding ligands are nucleic acid capture probes, said target analytes are target nucleic acid sequences, and said assay complexes are hybridization complexes.

31. (Previously presented) A method according to claim 30, wherein said hybridization complexes comprise said capture probes hybridized to said target sequences, respectively.

32. (Previously presented) A method according to claim 30, wherein said labels are covalently attached to said target sequences.

33. (Previously presented) A method according to claim 24 or 30, wherein said labels are hybridization indicators.

34. (Previously presented) A method according to claim 33, wherein said hybridization indicators are intercalators.

35. (Previously presented) A method according to claim 30, wherein said target sequences each comprise a first domain and a second domain, said hybridization complexes each comprise:

a) said capture probes hybridized to said first domains of said target sequences; and

b) label probes hybridized to said second domains of said target sequences.

36. (Previously presented) A method according to claim 35 wherein said label probes each comprise at least one covalently attached label.

37. (Previously presented) A method according to claim 24, 30 or 36 wherein said labels are fluorescent labels.

38. (Previously presented) A method according to claim 24, 30 or 36 wherein said labels are electron transfer moieties (ETMs).

39. (Previously presented) A method according to claim 38 wherein said ETMs are transition metal complexes.

40. (Previously presented) A method according to claim 39 wherein said transition metal complexes are metallocenes.

41. (Previously presented) A method according to claim 24, further comprising:

a) receiving detection information from said first biochip at a processor; and

b) receiving detection information from said second biochip at the processor.

42. (Previously presented) A method according to claim 41, wherein the act of detecting the presence of said label on said first and second biochips comprises analyzing said received detection information.